1. Consider a TCP session from a client A to a server B. Suppose that the first packet from A, following the “SYN packet” has a sequence number of 200. Suppose that some later packet from A has a sequence number of 700, a total IP packet length of 500 bytes and no IP or TCP options. Assume that no packets are lost.

   How many bytes have been sent from A so far (including the “current packet”)?

   What sequence number would you expect in the next packet from A?

   What value should appear in the acknowledgment number field of the next packet from B to A?

2. Refer to Figure 3.42 in K&R. What causes the server to leave the CLOSE_WAIT state?
3. Suppose that a TCP sender measures RTTs of 100 ms and 200 ms during a session. If the initial value of the estimated RTT is 150 ms, what is the value after the next two samples have been processed? For simplicity, assume $\alpha=0.5$. 